

IN THE CLAIMS:

Without prejudice, make the changes in the claims as indicated:

Cancel Claims 1 through 17 and add new Claims 21 through 29.

1. **(cancel)** A dental hygiene device comprising  
a cup member holding a tooth polishing material,  
said cup member having a bottom including an outwardly projecting  
attachment member that enables the device to be attached and detached  
to a suction tube adapted to be inserted into the mouth of a patient  
during polishing of the patient's teeth.
2. **(cancel)** The dental hygiene device of Claim 1 where the device is  
molded from a plastic.
3. **(cancel)** The dental hygiene device of Claim 1 where the  
attachment member comprises a pair of fingers of sufficient length and  
spaced apart a predetermined distance so that upon inserting the tube  
between the fingers the device is held securely to the tube during  
polishing of the patient's teeth.
4. **(cancel)** The dental hygiene device of Claim 1 where the cup  
member has an open top covered with a removable seal.
5. **(cancel)** The dental hygiene device of Claim 1 where the cup  
member has a compartment with an open top, said compartment having

the capacity to hold from 0.05 to 0.1 cubic inches of the tooth polishing material.

6. **(cancel)** The dental hygiene device of Claim 5 where the polishing material is a paste comprising an abrasive material including solid particulates.

7. **(cancel)** A dental hygiene device comprising  
a substantially cylindrical cup member holding a tooth polishing material,

said cup member having a compartment with an open top and a closed bottom having an exterior surface from which project a pair of finger elements configured to grasp a suction tube adapted to be inserted into the mouth of a patient during polishing of the patient's teeth,

said compartment being filled with a sufficient amount of polishing material to polish the teeth of essentially only a single patient, and

a removable seal member covering the open top of the compartment to retain the polishing material in the device until said seal member is removed.

8. **(cancel)** The dental hygiene device of Claim 7 where the open top of the cup member has a substantially circular configuration and is at least partially encompassed by a rim that projects outwardly from a side of the cup member.

9. **(cancel)** The dental hygiene device of Claim 7 where the compartment has the capacity to hold from 0.05 to 0.1 cubic inches of the tooth polishing material.

10. **(cancel)** A dental hygiene device molded from a plastic and comprising

a cup member holding a sufficient amount of polishing material to polish the teeth of essentially only a single patient,

said cup member having an open top and a closed bottom including an outwardly projecting attachment member that enables the device to be attached and detached to a suction tube adapted to be inserted into the mouth of a patient during polishing of the patient's teeth, and

a removable seal member covering the open top to retain the polishing material in the cup member until the seal member is removed.

11. **(cancel)** The dental hygiene device of Claim 10 where the attachment member comprises a pair of finger elements of sufficient length and spaced apart a predetermined distance so that upon inserting the tube between the finger elements the device is held securely to the tube during polishing of the patient's teeth.

12. **(cancel)** The dental hygiene device of Claim 11 where

the finger elements are centrally located, are substantially parallel, and are substantially parallel to a longitudinal axis of the cup member,

said finger elements merging at a base member connected to the bottom and forming an open bite having a substantially circular configuration having a diameter slightly less than a diameter of the suction tube,

said finger elements having inner edges tapering outward from the open bite to terminate at ends spaced apart a distance slightly greater than the diameter of the suction tube.

13. **(cancel)** The dental hygiene device of Claim 12 where the cup member has a compartment with an open top, said compartment having the capacity to hold from 0.05 to 0.1 cubic inches of the tooth polishing material.

14. **(cancel)** A dental hygiene device comprising  
a cup member adapted to hold a tooth polishing material,  
said cup member having a closed bottom including an outwardly projecting attachment member that enables the device to be attached and detached to a suction tube adapted to be inserted into the mouth of a patient during polishing of the patient's teeth.

15. **(cancel)** A dental hygiene device molded from a plastic material and comprising

a cup member having a substantially hollow cylindrical configuration with an open top, a closed bottom wall, and a side wall connecting the top and bottom wall,

said bottom wall having an exterior surface from which projects a pair of substantially parallel finger elements that are centrally located and are substantially parallel to and straddle a longitudinal axis of the cup member,

said finger elements merging at a base member connected to the exterior surface and forming an open bite having a substantially circular configuration with a diameter slightly less than a diameter of a suction tube adapted to be inserted into the mouth of a patient during polishing of the patient's teeth,

said finger elements having inner edges tapering outward from the open bite to terminate at ends spaced apart a distance slightly greater than the diameter of the suction tube.

16. **(cancel)** The dental hygiene device of Claim 15 where the inner edges each tapers outward from the bottom wall at an angle from 1 to 10 degrees with respect to the longitudinal axis of the cup member.

17. **(cancel)** The dental hygiene device of Claim 15 where the diameter of the open bite is substantially 0.25 inch.

18. **(original)** A method of polishing teeth comprising

(a) placing an end of a suction tube into an open mouth of a patient with an adjacent portion of the tube extending from the open mouth,

(b) mounting on the adjacent portion of the tube a dental hygiene device including an attachment member that enables the device to be attached and detached to the suction tube and a cup member holding a tooth polishing material, said device positioned on the tube to enable access to the tooth polishing material during polishing of the patient's teeth, and

(c) polishing the patient's teeth using a polishing implement connected to a tip of a dental handpiece while suction is concurrently being applied through said tube to withdraw saliva from the patient's mouth, said polishing implement being periodically inserted into the tooth polishing material to collect on the implement a portion of the material in the cup.

19. **(original)** The method of Claim 18 where the attachment member is substantially in the form of a clip member.

20. **(original)** A method of polishing teeth where a suction tube is placed into an open mouth of a patient, said tube having a dental hygiene device mounted on the tube nearby the open mouth, said dental hygiene device holding a tooth polishing material that is accessed periodically during polishing of the patient's teeth.

21. **(new)** A dental hygiene device adapted to be attached and detached to a suction tube inserted into the mouth of a patient during polishing of the patient's teeth, said tube having a predetermined diameter,

said device comprising

a cup member holding only a sufficient amount of polishing material to polish the teeth of essentially only a single patient,

said cup member having an open top covered with a removable seal and a closed bottom wall,

a clip configured to grasp the tube and including a pair of finger elements extending outward from the bottom wall that straddle a longitudinal axis of the cup member,

said fingers having spaced apart, outer terminal ends and inner ends that merge nearby the bottom wall to form between said inner ends an open bite that has a predetermined open dimension that is slightly less than the diameter of the suction tube,

said finger elements having inner edges tapering outward from the open bite to terminate at said outer ends, said outer ends being spaced apart a distance slightly greater than the diameter of the open bite so that

the tube passes between the outer ends and into the open bite to detachably connect the clip to the tube.

22. **(new)** The dental hygiene device of Claim 21 where the open bite has a substantially circular configuration.

23. **(new)** The dental hygiene device of Claim 22 where the diameter of the open bite is substantially 0.25 inch.

24. **(new)** The dental hygiene device of Claim 21 where the inner edges each tapers outward from the bottom wall at an angle substantially from 1 to 10 degrees with respect to the longitudinal axis of the cup member.

25. **(new)** The dental hygiene device of Claim 21 where the cup member has a volume substantially from 0.05 to 0.1 cubic inch.

26. **(new)** The dental hygiene device of Claim 21 is molded from plastic.

27. **(new)** A dental hygiene device adapted to be attached and detached to a suction tube inserted into the mouth of a patient during polishing of the patient's teeth,

said device being molded from a plastic and comprising

a cup member having a volume substantially from 0.05 to 0.1 cubic inch and holding only a sufficient amount of polishing material to polish the teeth of essentially only a single patient,

said cup member having an open top covered with a removable seal and a closed bottom wall,

a clip configured to grasp the tube and including a pair of finger elements extending outward from the bottom wall that straddle a longitudinal axis of the cup member,

said fingers having spaced apart, outer terminal ends and inner ends nearby the bottom wall to form between said inner ends an open bite having a substantially circular configuration with a diameter of substantially 0.25 inch,

said finger elements having inner edges tapering outward from the open bite to terminate at said outer ends, said outer ends being spaced apart a distance slightly greater than the diameter of the open bite so that the tube passes between the outer ends and into the open bite to detachably connect the clip to the tube.

28. **(new)** The dental hygiene device of Claim 27 where the inner edges each tapers outward from the bottom wall at an angle substantially from 1 to 10 degrees with respect to the longitudinal axis of the cup member.

29. **(new)** The combination comprising

a suction tube adapted to be inserted into the mouth of a patient and

a dental hygiene device detachably connected to a portion of the suction tube extending from the mouth of the patient,

said dental hygiene device comprising

a cup member holding a tooth polishing material,

said cup member having a bottom including an outwardly projecting attachment member connected to the suction tube during polishing of the patient's teeth.